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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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11/28/2001

Thomas Blattner

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EXAMINER

CADUGAN, ERICA E

ART UNIT

PAPER NUMBER

3722

MAIL DATE

DELIVERY MODE

05/29/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/994,741

Applicant(s)

BLATTNER ET AL.

Examiner

Erica E. Cadugan

Art Unit

3722

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 9-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 9-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Art Unit: 3722

DETAILED ACTION

1. This is a non-final rejection in response to the amendment filed January 9, 2006. This Office Action supersedes all previous actions, and any previous indications of allowable subject matter are hereby withdrawn.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Specification

3. The disclosure is objected to because of the following informalities: in paragraph 0022 (page 6 of the specification as originally filed), the application mentions two U.S. patent applications, and lists both of their serial numbers as x/xxx,xxx. The specification should be updated to reflect the actual serial numbers. Care should be taken to avoid the entry of new matter, noting that if multiple applications by the listed inventors with the same listed titles were filed on the date indicated (beyond the two applications cited in paragraph 0022), narrowing that to a specific application by serial number would constitute new matter.

Appropriate correction is required.

Claim Objections

4. Claim 1 is objected to because of the following informalities: in claim 1, lines 4-5, it appears that "plurality of superposed sheet-like material" should be changed to --plurality of superposed sheet-like materials-- (i.e., plural). Appropriate correction is required.

Claim Rejections - 35 USC § 112

Art Unit: 3722

5. Claims 5 and 16-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 5, line 2, and claim 16, line 2, it is unclear as set forth in the claim what quantity or range of quantities is encompassed by the term "several".

In claim 17, it is unclear as currently claimed whether "an electronic control device" is intended to be a subset of or different from the previous "electronic device" set forth in claim 10. If they are, as it appears from at least Figure 1, intended to refer to the same device, Examiner suggests amending claim 17 similarly to the following:

Claim 17 (Proposed Amendment). The process of claim 10, wherein the electronic device is an electronic control device and further comprising determining production parameters with [an] the electronic control device.

In claim 18, it is unclear as claimed whether the "one or more production parameters" is intended to be a subset of or different from the "production parameters" previously set forth in claim 17, for example.

Claim Rejections - 35 USC § 102

6. Claims 1-4, 6, 9, and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Pat. No. 4,558,981 to Fabrig.

Fabrig teaches a method for producing a bound stationary article, such as a steno pad, book, calendar, or like commodity, considered a "brochure" as broadly claimed (see at least col. 1, lines 10-26, for example). Fabrig's method includes a step of providing a plurality of perforated superposed sheets 14 at binding station G (see the upper right portion of Figure 1 and

Art Unit: 3722

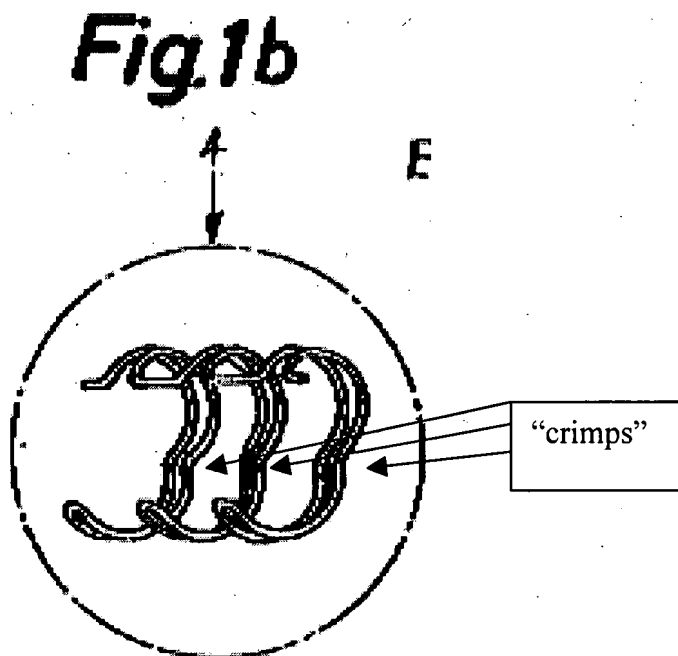
at least col. 6, lines 23-49, for example). It is noted that no supply of “pre-formed” looped binding elements is used, but that instead, a supply 2 of wire 1 is provided, and is fed to a bending station A where it is formed into a “flat, multiple looped binding element” 3 (see Figures 1 and 1a, for example). The binding element 3 is cut to a desired length (Figure 1 shows the use of “skip” or “composite” binding elements wherein plural cut binding elements 7a-7c, 7d-7f are used on a single brochure, and re claim 6, Figure 4 shows an embodiment wherein a single cut binding element 707a or 707b corresponding to a width of the brochure is used on a single brochure, see also col. 12, lines 35-41, for example). Further note that all of the loops of a particular binding element are inserted in the perforations of a particular stack at the same time, and are then closed into a “ring-like binding” (see station G in Figure 1 as well as col. 10, line 41 through col. 11, line 14, as well as col. 12, lines 16-34, for example).

Note that, as broadly claimed, the insertion of the looped binding elements into the perforations is considered to occur “immediately after” the producing of the binding elements, particularly noting that the production is a continuous in-line operation that does not rely on a “supply of pre-formed looped binding elements” (see at least Figures 1 and 4, for example).

Furthermore, re the step of “determining at least one production parameter with an electronic control device” as set forth in claim 1, it is noted that at least col. 5, lines 49-68 provides a teaching of the use of a signal generating device, such as a variable resistor or potentiometer, which is used to “regulate the speed of the machine at the first bending station A...”. It is noted that a signal generating device such as a resistor or potentiometer is “electronic”, and serves to control at least the production parameter of the speed of the machine at the first bending station, for example.

Re claim 2, claim 2 sets forth “further comprising tailoring said looped binding element to complement said perforations”. It is noted that, as broadly claimed, there are many ways in which the loops taught by Fabrig can be considered to be “tailored” so as to “complement said perforations”. Firstly, note that if the loops weren’t produced or “tailored” to have the appropriate configuration to match up with the perforations, the binding operation at station G described above would not be able to occur because the loops would not be at the appropriate locations to pass through the perforations. Secondly, it is noted that by virtue of the fact that Fabrig teaches that either “skip” binding using plural binding elements per brochure (Figure 1) or binding using one binding element per brochure (Figure 4) can be used as described previously, the selection of one versus the other is a way of “tailoring” the looped binding element to complement the perforations. Thirdly, the act of binding itself is a “tailoring” or manipulation of the looped binding element to make it complement the perforations. Fourth, note that the mere act of producing a binding element that is the appropriate size to match up with a particular set of perforations is itself an act of “tailoring” the binding element to complement the perforations. These are just a few ways in which Fabrig can be considered to meet the present claim language of claim 2.

Re claim 3, it is noted that at least the section so indicated in the reproduction of Figure 1b below can be considered to be a “crimp” that is “formed” in a loop of the looped binding element.



Re claim 4, it is noted that there are a "series" of such crimps as shown in the above reproduction of Figure 1b.

Re claim 9, it is noted that the monitoring means taught by Fabrig that is operatively connected to the previously described signal generating device, such as a variable resistor or potentiometer, is used to monitor the dimensions of a loop formed in the body 3 between the stations A and B, which dimensions at least in some fashion are the "wire diameter" and/or "length", i.e., the diameter and/or length of such located within the feed loop, which monitoring occurs so as to regulate the operation of the machines at stations A and B (col. 5, lines 49-68).

Claim Rejections - 35 USC § 103

Art Unit: 3722

7. Claim 5, as best understood, is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 4,558,981 to Fabrig as applied to claim 1 above, and further in view of U.S. Pat. No. 2,130,318 to Cruzan.

Fabrig teaches all aspects of the presently-claimed invention as set forth above, but is silent about whether the “crimp” or “crimps” labeled above are formed “loop by loop, with a single bending die”.

Cruzan teaches a wire deforming machine, wherein a flat looped or zig-zag stock 10 is fed into the machine (see Figures 1 and 5 and page 1, right column, lines 21-26, for example). Cruzan explicitly states that the formed stock may be kept in continuous lengths and severed into desired lengths at any subsequent time, or it can be severed in the shown machine, and Cruzan further teaches that the machine shown may be readily combined with or placed in-line with existing equipment (see at least page 3, left column, lines 57-74, for example). Furthermore, it is noted that Figure 3 is a vertical side section of Figure 1, that Figure 4 is a view along line 4-4 of Figure 3, and that Figure 5 is a view along line 5-5 of Figure 3. Upper die 56 crimps or creases one loop at a time at 72 via 71 (see Figures 3-5 and page 2, left column, line 30 through page 2, right column, line 16, for example, noting that 71 is the creasing or crimping part of the die 56).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have utilized a machine such as the one taught by Cruzan that crimps the loops one by one and also serves to form the loops into a “C” shape for the generic bending machine B taught by Fabrig which also serves to crimp and form the loops into a C, particularly since Cruzan teaches that the bending machine can be readily combined with existing equipment as described previously, and for the purposes of providing such a machine that is able to be

Art Unit: 3722

“operated at high speed and produce a uniform high grade product” and one in which the material feed is smooth, all as explicitly taught by Cruzan in at least page 2, left column, lines 35-48, for example).

8. Claims 10-13 and 15-20 any of which are rejected under 35 USC 112 above are as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 4,558,981 to Fabrig in view of U.S. Pat. No. 5,695,308 to Hastings et al.

Fabrig teaches all aspects of the presently-claimed invention as set forth in the above rejection(s) based thereon.

Additionally, regarding claims 18-19, it is noted that as broadly claimed, the binding elements must inherently be produced “according to” at least the production parameter of perforation spacing, for example, or else the binding elements wouldn’t “match up” with the perforations that they are to be inserted into in the binding step as described previously.

However, firstly, re claims 10 and 20, while Fabrig does teach that the wire 1 is supplied or “conveyed” to wire bending device A from a “barrel or another suitable source of wire” 2 (Figure 1, col. 5, lines 9-10), but does not explicitly teach that the “barrel or another suitable source of wire” is in the form of a “wire spool” as claimed.

Additionally, re claims 10 and 20, while it is considered to be inherent that for the device to function properly to assemble the desired end product, the thickness of the brochure must be “determined” at some point, Fabrig does not explicitly teach that such thickness is stored in an electronic device as claimed.

Re the supply of the wire being from a “wire spool”, Examiner takes Official Notice that the use of a “wire spool” as “another suitable source of wire” to supply wire to a wire processing

Art Unit: 3722

arrangement is well known and widely used in industry, and provides the known benefit of being a readily available “off-the-shelf” way of obtaining wire.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have substituted a well-known wire spool for the generic “another suitable source of wire” as taught by Fabrig for enabling the wire to be easily and readily obtained “off-the-shelf” in the manner in which it is to be supplied to the system of Figure 1 of Fabrig’s device, as would be a well-known benefit of using wire from a spool.

Re the step of “determining a thickness of a brochure to be produced and storing said thickness in an electronic device”, Hastings teaches a method and apparatus for binding a stack of paper sheets together, and is thus in a similar area of endeavor. In Hastings invention, a sensor 182 is used to provide the thickness of a stack of papers to a microprocessor, and the measured or sensed thickness is used by the microprocessor to provide or determine an indication or determination of the required binding element size (see at least col. 11, lines 22-47 and col. 12, lines 34-44, for example). [Note that if the sensed thickness is sensed or “determined” and then sent to a microprocessor, inherently, the microprocessor at least has such thickness stored in its random access memory (RAM).]

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have provided the microprocessor and thickness sensor arrangement taught by Hastings to the system taught by Fabrig for the purpose of facilitating the determination of an appropriate binding element size in Fabrig’s arrangement as taught by Hastings, or for the purpose of facilitating the production of brochures or bound paper stacks of varying thicknesses, as would be readily understood by one having ordinary skill in the art.

Art Unit: 3722

9. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 4,558,981 to Fabrig in view of U.S. Pat. No. 5,695,308 to Hastings et al. as applied to at least claim 10 above, and further in view of U.S. Pat. No. 2,130,318 to Cruzan.

Fabrig (in view of Hastings) teaches all aspects of the presently-claimed invention as set forth above, but is silent about whether the “crimp” or “crimps” labeled above are formed “loop by loop, with a single bending die”.

Cruzan teaches a wire deforming machine, wherein a flat looped or zig-zag stock 10 is fed into the machine (see Figures 1 and 5 and page 1, right column, lines 21-26, for example). Cruzan explicitly states that the formed stock may be kept in continuous lengths and severed into desired lengths at any subsequent time, or it can be severed in the shown machine, and Cruzan further teaches that the machine shown may be readily combined with or placed in-line with existing equipment (see at least page 3, left column, lines 57-74, for example). Furthermore, it is noted that Figure 3 is a vertical side section of Figure 1, that Figure 4 is a view along line 4-4 of Figure 3, and that Figure 5 is a view along line 5-5 of Figure 3. Upper die 56 crimps or creases one loop at a time at 72 via 71 (see Figures 3-5 and page 2, left column, line 30 through page 2, right column, line 16, for example, noting that 71 is the creasing or crimping part of the die 56).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have utilized a machine such as the one taught by Cruzan that crimps the loops one by one and also serves to form the loops into a “C” shape for the generic bending machine B taught by Fabrig which also serves to crimp and form the loops into a C, particularly since Cruzan teaches that the bending machine can be readily combined with existing equipment as described previously, and for the purposes of providing such a machine that is able to be

Art Unit: 3722

“operated at high speed and produce a uniform high grade product” and one in which the material feed is smooth, all as explicitly taught by Cruzan in at least page 2, left column, lines 35-48, for example).

Response to Arguments

10. Applicant's arguments/remarks filed January 9, 2006, with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

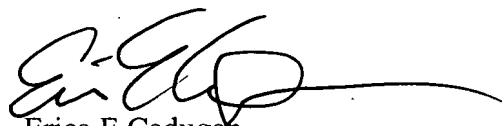
11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Note, for example, that in art such as U.S. Pat. No. 3,883,916 to Adams et al. (already of record from the PTO-892 of October 8, 2003), Adams teaches a process of producing brochures “without a supply of pre-formed looped binding elements” (note that even though a reel 18 of C-shaped binding wire in an open state is provided, these are not “formed” into “binding elements” until they are cut to length, see also col. 1, lines 57-65, for example) including the steps of providing a plurality of perforated superposed sheet-like materials (col. 3, lines 44-50 and 59-61, for example), “determining” at least one production parameter (such as length of the binding element) with an electronic control device (see col. 3, first paragraph, and col. 3, line 62 through col. 4, line 7, for example), “forming a binding element by forming a plurality of loops in a row extending across the width of a brochure” by cutting a length of the binding wire from reel 18 with cutter 48 (see at least col. 3, lines 16-23), and “inserting” this looped binding element into the perforations “immediately after producing said looped binding element by inserting all of said loops into the perforations at the same time” (see Figure 1 and col. 3, lines 44-50, for example).

Art Unit: 3722

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erica E. Cadugan whose telephone number is (571) 272-4474. The examiner can normally be reached on M-F, 6:30 a.m. to 4:00 p.m., alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Monica S. Carter can be reached on (571) 272-4475. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Erica E Cadugan
Primary Examiner
Art Unit 3722

eec
May 23, 2007